Generative Agent Simulations of 1,000 People

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Abstract

The promise of human behavioral simulation--general-purpose computational agents that replicate human behavior across domains--could enable broad applications in policymaking and social science. We present a novel agent architecture that simulates the attitudes and behaviors of 1,052 real individuals--applying large language models to qualitative interviews about their lives, then measuring how well these agents replicate the attitudes and behaviors of the individuals that they represent. The generative agents replicate participants' responses on the General Social Survey 85% as accurately as participants replicate their own answers two weeks later, and perform comparably in predicting personality traits and outcomes in experimental replications. Our architecture reduces accuracy biases across racial and ideological groups compared to agents given demographic descriptions. This work provides a foundation for new tools that can help investigate individual and collective behavior.